CLAIMS

We claim:

1.    A method for screening for a bioactive agent capable of binding to a cell cycle protein R0101, said method comprising:

       a) combining a cell cycle protein R0101 *(SEQ ID NO: 2)* and a candidate bioactive agent; and

       b) determining the binding of said candidate bioactive agent to said cell cycle protein R0101 *(SEQ ID NO: 2)*.

2.    A method for screening for a bioactive agent capable of interfering with the binding of a cell cycle protein R0101 *(SEQ ID NO: 2)* and a PCNA protein, said method comprising:

       a) combining a cell cycle protein R0101 *(SEQ ID NO: 2)*, a candidate bioactive agent and a PCNA protein; and

       b) determining the binding of said cell cycle protein R0101 *(SEQ ID NO: 2)* and said PCNA protein.

3.    A method according to Claim 2, wherein said cell cycle protein R0101 *(SEQ ID NO: 2)* and said PCNA protein are combined first.

4.    A method for screening for a bioactive agent capable of modulating the activity of cell cycle protein R0101 *(SEQ ID NO: 2)*, said method comprising:

       a) adding a candidate bioactive agent to a cell comprising a recombinant nucleic acid encoding a cell cycle protein R0101 *(SEQ ID NO: 2)*; and

       b) determining the effect of said candidate bioactive agent on said cell.

5.    A method according to Claim 4, wherein a library of candidate bioactive agents is added to a plurality of cells comprising a recombinant nucleic acid encoding a cell cycle protein R0101 *(SEQ ID NO: 2)*.

6.    An antibody to a cell cycle protein R0101 *(SEQ ID NO: 2)*.

7.    The antibody of Claim 6 wherein said antibody is a monoclonal antibody.

8.    The antibody of Claim 6 wherein said antibody reduces or eliminates the biological function of said cell cycle protein R0101 *(SEQ ID NO: 2)*.

9.    A method of diagnosing cancer in an individual, said method comprising determining the level of expression of R0101 *(SEQ ID NO: 2)* in a sample taken from an individual and comparing said level to a control which has a level which indicates there is no cancer, wherein an increase in said sample compared to said control indicates a diagnoses of cancer.

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